

**REMARKS**

Reconsideration and allowance of the above-identified application are respectfully requested.

Claims 1-67 are currently pending, wherein claims 1, 19, 35 and 53 are independent.

Applicants note with appreciation the characterization by the Patent Office of claims 7, 24, 40 and 57 as allowable if rewritten in independent form, including all of the features of the base claim and any intervening claim. Applicants reserve the right to rewrite the aforementioned claims in independent form at a later date.

In the second section of the Office Action, claims 1-4, 6, 8-10, 16, 18-21, 23, 25-29, 35-37, 39, 41-43, 49-50, 52-54 and 58-62 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Jordal (U.S. Patent No. 4,862,141, hereinafter "Jordal") in view of either Sivathanu et al. (U.S. Patent No. 6,111,511, hereinafter "Sivathanu") or Kaufman (U.S. Patent No. 6,545,608, hereinafter "Kaufman"). These rejections are respectfully traversed.

Exemplary embodiments of the present invention are directed to a self-protected fire-sensing alarm system and method. According to exemplary embodiments, a volume, room or other space can be automatically monitored for the presence of a flame, smoke or fire. While the presence of a flame, smoke or fire in the volume may be unintentional, an individual may intentionally create a flame, smoke or fire in the volume for the purposes of, for example, causing a hazard to property or persons, lighting a cigarette where smoking is not permitted, and the like. Thus, the individual may deliberately attempt to counter the fire-sensing system's ability to detect the fire to prevent the system from detecting the flame or fire. Measures to counter the fire-sensing system can include, for example, attempts to blind the system, attempts to damage the system, attempts to move or remove the system, and the like.

The self-protected fire-sensing system according to exemplary embodiments incorporates means to negate these and other countermeasures.

More particularly, upon the presence of an event, such as the detection of flame, smoke or fire within the volume or the detection of an attempt to tamper with or otherwise negate the performance of the system, an alerting signal can be sent to a monitor or other person or persons. The monitor or other person can be located locally or remotely to the system. The alerting signal can be an audible, visual or tactile signal that can be generated locally to the system (e.g., to alert persons within a vicinity of the system of the presence of the event). If the monitor or other person is located remotely to the system, the alerting signal can be sent via a wire or a wireless communications system, and the audible, visual or tactile signal can be generated remotely at the location of the monitor or other person to alert the monitor or other person of the presence of the event. [see present application, paragraphs 0036 and 0037]

As understood by Applicants, Jordal is directed to an integrated smoke and intrusion alarm system for windows, doors or other openings in exterior building walls that can be subject to intrusion, e.g., by a burglar attempting entry. [see Jordal, Abstract, and column 3, lines 19-26] As illustrated in FIGS. 4 and 5 of Jordal, the alarm system includes an intrusion detecting means 12 that is physically separate from a smoke detecting means 11. [see Jordal, FIGS. 4 and 5 and column 3, lines 7-12]

As acknowledged by the Patent Office, “Jordal fails to disclose the apparatus comprising a flame sensor for detecting the presence of a flame within the volume.” [Office Action, page 3] Additionally, since Jordal does not teach or suggest the feature of a flame sensor, it is respectfully submitted that Jordal also does not teach or suggest the feature of “an

alarm indicator for indicating an alarm condition in response to at least one of i.) a detection of the presence of flame within the volume, and ii.) a detection of tampering to the apparatus,” as recited in, for example, independent claim 1 of the present application.

Furthermore, according to Jordal, “[a]nti-tamper switch 17 as shown in FIGS. 1, 2, 4 and 5 prevents unauthorized removal of **the intrusion detecting means**.” [Jordal, column 3, lines 62-64] It is respectfully submitted that **nowhere** does Jordal teach or even suggest that the anti-tamper switch 17 prevents unauthorized removal of the smoke detecting means 11. Although electrically joined to each other and to the solar power charging means 40, the smoke detecting means 11 is a separate and independent unit from the intrusion detecting means 12. [see Jordal, column 3, lines 7-15; column 4, lines 49-56] At most, Jordal merely teaches that the anti-tamper switch 17 prevents unauthorized removal of the intrusion detecting means 12. It is respectfully submitted that Jordal does not teach or even suggest the features of a tamper sensor for detecting tampering to the fire-sensing apparatus, or an alarm indicator for indicating an alarm condition in response to i.) a detection of the presence of flame within the volume, and/or ii.) *a detection of tampering to the **fire-sensing apparatus***.

As Jordal does not teach or suggest numerous features of the present invention, it is respectfully submitted that Jordal does not render the subject matter of independent claim 1 obvious.

As understood by Applicants, Sivathanu is directed to a fire and smoke detector that utilizes a statistical analysis of the near infrared radiation incident on it. [see Sivathanu, Abstract] However, it is respectfully submitted that **nowhere** does Sivathanu teach or even suggest the features of a **tamper sensor** for detecting tampering **to the fire-sensing apparatus**, or an alarm indicator for indicating an alarm condition in response to i.) a

detection of the presence of flame within the volume, and/or ii.) a detection of tampering to the fire-sensing apparatus. Consequently, it is respectfully submitted that Sivathanu does not address the above-identified deficiencies of Jordal.

As understood by Applicant, Kaufman is directed to a flame-sensing element and supporting circuitry that is disguised by installing it in an object normally found within the type of room in which it is to monitor. [see Kaufman, Abstract] However, it is respectfully submitted that **nowhere** does Kaufman teach or even suggest the features of a **tamper sensor** for detecting tampering **to the fire-sensing apparatus**, or an alarm indicator for indicating an alarm condition in response to i.) a detection of the presence of flame within the volume, and/or ii.) a detection of tampering to the fire-sensing apparatus. Consequently, it is respectfully submitted that Kaufman does not address the above-identified deficiencies of Jordal and Sivathanu.

Additionally, according to established mandates of the patent laws, “[t]o establish a prima facie case of obviousness . . . there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings.” [M.P.E.P. § 2142] “There are three possible sources for a motivation to combine references: the nature of the problem to be solved, the teachings of the prior art, and the knowledge of persons of ordinary skill in the art.” [M.P.E.P. § 2143.01] “The motivation, suggestion or teaching may come explicitly from statements in the prior art, the knowledge of one of ordinary skill in the art, or, in some cases the nature of the problem to be solved.” [*In re Kotzab*, 217 F.3d 1365, 1370, 55 U.S.P.Q.2d 1313, 1317 (Fed. Cir. 2000)] The showing must be “clear and particular, and it must be supported by **actual evidence**.” [*Teleflex, Inc. v. Ficosa North*

*American Corp.*, 299 F.3d 1313, 1334, 63 U.S.P.Q.2d 1374, 1387 (Fed. Cir. 2002) (quoting *In re Dembiczak*, 175 F.3d 994, 999, 50 U.S.P.Q.2d 1614, 1617 (Fed. Cir. 1999)) (emphasis added)] It is not sufficient to rely on “common sense and common knowledge,” as there must be specific evidence to support the motivation. [See *In re Lee*, 277 F.3d. 1338, 1344-45, 61 U.S.P.Q.2d 1430, 1434-35 (Fed. Cir. 2002)]

It is respectfully submitted that the Patent Office has made absolutely no showing of a motivation to combine based on actual, specific, evidence. With respect to the combination of Jordal, Kaufman and Sivathanu, the Patent Office merely asserts that “it would have been obvious to one of ordinary skill in the art to incorporate a flame sensor into the apparatus of Jordal for detecting both a flame within a volume and an alarm indicator for indicating the presence of a flame . . . .” [Office Action, page 3] It is respectfully submitted that the Patent Office’s alleged motivation is simply a bald, naked assertion, completely unsupported by any **actual, specific evidence**. Consequently, it is respectfully submitted that the Patent Office has not established a *prima facie* case of obviousness.

Rather, according to M.P.E.P. § 2142, “[t]o reach a proper determination under 35 U.S.C. 103, . . . impermissible hindsight must be avoided and the legal conclusion [of obviousness] must be reached on the basis of the facts gleaned from the prior art.” Furthermore, according to M.P.E.P. § 2143.01, “[t]he mere fact that references can be . . . modified does not render the resultant combination obvious unless the prior art also suggests the desirability of [such modification].” [*citing* *In re Mills*, 916 F.2d 680, 16 U.S.P.Q.2d 1430 (Fed. Cir. 1990)] As each of the references do not teach or suggest numerous features recited in, for example, independent claim 1 of the present application, and since the Patent Office has offered absolutely no proper support or motivation for combining the references, it is

respectfully submitted that the rejection based on obviousness is clearly and unequivocally founded upon “knowledge gleaned only from applicant’s disclosure.” [*see* M.P.E.P. § 2145] Consequently, it is respectfully submitted that the rejection entails hindsight, and is, therefore, improper.

For at least the foregoing reasons, it is respectfully submitted that Jordal, Kaufman and Sivathanu, whether considered alone or in combination, do not render the subject matter of independent claim 1 obvious.

Independent claims 19, 35 and 53 recite features similar to those recited in independent claim 1, and are, therefore, patentably distinguishable over the combination of Jordal, Kaufman and Sivathanu for at least those reasons state above with regard to claim 1.

Dependent claims 2-4, 6, 8-10, 16, 18, 20, 21, 23, 25-29, 36, 37, 39, 41-43, 49-50, 52, 54 and 58-62 variously depend from independent claims 1, 19, 35 and 53, and are, therefore, patentably distinguishable over the combination of Jordal, Kaufman and Sivathanu for at least those reasons stated above with regard to claims 1, 19, 35 and 53.

With regard to the rejection of claim 26, the Patent Office asserts that “[i]t has been known that a typical sensor housing withstand a certain amount of shock applied as a matter of design choice, thus it would have been obvious to one of ordinary skill in the art to have a shock-resistant enclosure for countering tampering attempt to damage the sensor.” [Office Action, page 7] Applicants respectfully traverse such an assertion.

According to M.P.E.P. § 2144.03, “[t]he examiner may take official notice of facts outside of the record which are capable of instant and unquestionable demonstration as being ‘well-known’ in the art.” In other words, official notice may be taken “[i]f the knowledge [outside of the record] is of . . . notorious character.” [M.P.E.P. § 2144.03] Furthermore, “[i]f

the applicant traverses such an assertion the examiner should cite a reference in support of his or her position.” [M.P.E.P. § 2144.03] Pursuant to M.P.E.P. § 2144.03, Applicants traverse the aforementioned assertion by the Patent Office and respectfully requests that the Patent Office cite a document that teaches such an allegedly “instant and unquestionable” fact so that the Applicants have a full and fair opportunity to respond to the combination of documents.

For at least the foregoing reasons, it is respectfully submitted that Jordal, Kaufman and Sivathanu, whether considered alone or in combination, do not render the subject matter of claims 1-4, 6, 8-10, 16, 18-21, 23, 25-29, 35-37, 39, 41-43, 49-50, 52-54 and 58-62 obvious. Accordingly, reconsideration and withdrawal of these grounds of rejection are respectfully requested.

In the third section of the Office Action, claims 5, 17, 22, 38, 51 and 55 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Jordal in view of Kaufman, and further in view of Rodhall et al. (U.S. Patent No. 5,463,595, hereinafter “Rodhall”). These rejections are respectfully traversed.

Dependent claims 5, 17, 22, 38, 51 and 55 variously depend from independent claims 1, 19, 35 and 53, and are, therefore, patentably distinguishable over the combination of Jordal, Kaufman and Rodhall for at least those reasons stated above with regard to claims 1, 19, 35 and 53. In particular, it is respectfully submitted that Rodhall does not teach or even suggest the features of a tamper sensor for detecting tampering to the fire-sensing apparatus, or an alarm indicator for indicating an alarm condition in response to i.) a detection of the presence of flame within the volume, and/or ii.) *a detection of tampering to the fire-sensing*

apparatus. Consequently, it is respectfully submitted that Rodhall does not address the above-identified deficiencies of Jordal and Kaufman.

In addition, it is respectfully submitted that the Patent Office has made absolutely no showing of a motivation to combine based on actual, specific, evidence. With respect to the combination of Jordal, Kaufman and Rodhall, the Patent Office merely asserts that “it would have been obvious to one of ordinary skill[] in the art to alternatively incorporate the motion or shock sensors into the fire sensing apparatus of Jordal-Kaufman in order to provide effective mechanism for detecting tampering with the apparatus.” [Office Action, page 9 and page 10] It is respectfully submitted that the Patent Office’s alleged motivation is simply a bald, naked assertion, completely unsupported by any **actual, specific evidence**.

Consequently, it is respectfully submitted that the Patent Office has not established a *prima facie* case of obviousness. Rather, it is respectfully submitted that the rejection entails hindsight, and is, therefore, improper.

Accordingly, reconsideration and withdrawal of these grounds of rejection are respectfully requested.

In the fourth section of the Office Action, claims 6, 23, 39 and 56 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Jordal in view of Kaufman, and further in view of Swanson (U.S. Patent No. 5,293,115, hereinafter “Swanson”). These rejections are respectfully traversed.

Dependent claims 6, 23, 39 and 56 variously depend from independent claims 1, 19, 35 and 53, and are, therefore, patentably distinguishable over the combination of Jordal, Kaufman and Swanson for at least those reasons stated above with regard to claims 1, 19, 35 and 53. In particular, it is respectfully submitted that Swanson does not teach or even suggest



the features of a tamper sensor for detecting tampering to the **fire-sensing** apparatus, or an alarm indicator for indicating an alarm condition in response to i.) a detection of the presence of flame within the volume, and/or ii.) *a detection of tampering to the **fire-sensing** apparatus*. Consequently, it is respectfully submitted that Swanson does not address the above-identified deficiencies of Jordal and Kaufman.

In addition, it is respectfully submitted that the Patent Office has made absolutely no showing of a motivation to combine based on actual, specific, evidence. With respect to the combination of Jordal, Kaufman and Swanson, the Patent Office merely asserts that “it would have been obvious to one of ordinary skill[] in the art to include a tampering sensor comprising a light sensor for sensing tampering to the apparatus of Jordal and prevent the apparatus from operating properly.” [Office Action, page 11] It is respectfully submitted that the Patent Office’s alleged motivation is simply a bald, naked assertion, completely unsupported by any **actual, specific evidence**. Consequently, it is respectfully submitted that the Patent Office has not established a *prima facie* case of obviousness. Rather, it is respectfully submitted that the rejection entails hindsight, and is, therefore, improper.

Accordingly, reconsideration and withdrawal of these grounds of rejection are respectfully requested.

In the fifth section of the Office Action, claims 11-15, 30-34, 44-48 and 63-67 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Jordal in view of Kaufman, and further in view of Weiss et al. (U.S. Patent No. 5,905,438, hereinafter “Weiss”). These rejections are respectfully traversed.

Dependent claims 11-15, 30-34, 44-48 and 63-67 variously depend from independent claims 1, 19, 35 and 53, and are, therefore, patentably distinguishable over the combination

of Jordal, Kaufman and Weiss for at least those reasons stated above with regard to claims 1, 19, 35 and 53. In particular, it is respectfully submitted that Weiss does not teach or even suggest the features of a **tamper sensor** for detecting tampering to the fire-sensing apparatus, or an alarm indicator for indicating an alarm condition in response to i.) a detection of the presence of flame within the volume, and/or ii.) *a detection of tampering to the fire-sensing apparatus*. Consequently, it is respectfully submitted that Weiss does not address the above-identified deficiencies of Jordal and Kaufman.

In addition, it is respectfully submitted that the Patent Office has made absolutely no showing of a motivation to combine based on actual, specific, evidence. With respect to the combination of Jordal, Kaufman and Weiss, the Patent Office merely asserts that “it would have been obvious to one of ordinary skill[] in the art to have the fire sensing apparatus of Jordal and Kaufman to periodically transmit a status message to the remote monitoring unit for conserving power as well as reporting conditions from the sensor units.” [Office Action, page 12; *see also* pages 13, 14 and 15] It is respectfully submitted that the Patent Office’s alleged motivation is simply a bald, naked assertion, completely unsupported by any **actual, specific evidence**. Consequently, it is respectfully submitted that the Patent Office has not established a *prima facie* case of obviousness. Rather, it is respectfully submitted that the rejection entails hindsight, and is, therefore, improper.

Accordingly, reconsideration and withdrawal of these grounds of rejection are respectfully requested.

All of the rejections raised in the Office Action having been addressed, it is respectfully submitted that the present application is in condition for allowance and a notice to that effect is earnestly solicited. Should the Examiner have any questions regarding this response or the application in general, the Examiner is urged to contact the Applicants' attorney, Andrew J. Bateman, by telephone at (202) 625-3547. All correspondence should continue to be directed to the address given below.

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